

CLAIMS

1. A drug for proliferating animal natural killer cells, which comprises a first agent containing lactoferrin and a second agent containing a Toll-like receptor ligand, wherein the first agent and the second agent are separately packaged in the drug.

2. The drug for proliferating natural killer cells according to claim 1, wherein the first agent is administered everyday for 5 to 10 days in an amount of 10 to 2000 mg/day/kg body weight in terms of the amount of lactoferrin, and the second agent is administered 5 to 2 days before the completion of the administration of the first agent in an amount of 10 to 1000 µg/day/kg body weight in terms of the amount of the Toll-like receptor ligand.

3. The drug for proliferating natural killer cells according to claim 1 or 2, wherein the first agent containing lactoferrin is orally administered, and the second agent containing a Toll-like receptor ligand is intraperitoneally administered.

4. The drug for proliferating natural killer cells according to any one of claims 1 to 3, wherein the Toll-like receptor ligand is polyinosinic-polycytidylic acid.

5. A method for proliferating natural killer cells in an animal (except for human), which comprises administering lactoferrin and a Toll-like receptor ligand to the animal.

6. The method for proliferating natural killer cells according to claim 5, wherein lactoferrin is administered everyday for 5 to 10 days in an amount of 10 to 2000 mg/day/kg body weight, and the Toll-like receptor ligand is administered 5 to 2 days before the completion of

administration of lactoferrin in an amount of 10 to 1000 $\mu\text{g/day/kg}$ body weight.

7. The method for proliferating natural killer cells according to claim 5 or 6, wherein lactoferrin is orally administered, and the Toll-like receptor ligand is intraperitoneally administered.

8. The method for proliferating natural killer cells according to any one of claims 5 to 7, wherein the Toll-like receptor ligand is polyinosinic-polycytidylic acid.

9. A method for producing natural killer cells, which comprises administering lactoferrin and a Toll-like receptor ligand to an animal (except for human), and collecting natural killer cells from the animal.

10. The method for producing natural killer cells according to claim 9, wherein lactoferrin is administered everyday for 5 to 10 days to the animal (except human) in an amount of 10 to 2000 mg/day/kg body weight, the Toll-like receptor ligand is administered 5 to 2 days before the completion of administration of lactoferrin in an amount of 10 to 1000 $\mu\text{g/day/kg}$ body weight, and natural killer cells are collected from the animal.

11. The method for producing natural killer cells according to claim 9 or 10, wherein lactoferrin is orally administered, the Toll-like receptor ligand is intraperitoneally administered, and natural killer cells are collected from the peritoneal cavity.

12. The method for producing natural killer cells according to any one of claims 9 to 11, wherein the Toll-like receptor ligand is polyinosinic-polycytidylic acid.

13. A method for screening for a substance having an action of proliferating natural killer cells in a living body of an animal, which comprises administering a test

substance and a Toll-like receptor ligand to the animal and detecting induction of NK cells in the animal.

14. The method according to claim 13, wherein the test substance is administered everyday for 5 to 10 days to the animal (except for human), and the Toll-like receptor ligand is administered 5 to 2 days before the completion of administration of the test substance.

15. The method according to claim 13 or 14, wherein the test substance is orally administered, and the Toll-like receptor ligand is intraperitoneally administered.

16. The method according to any one of claims 13 to 15, wherein the Toll-like receptor ligand is polyinosinic-polycytidylic acid.

17. The method according to any one of claims 13 to 16, wherein the test substance is food, drink or a component thereof.

18. Use of lactoferrin and a Toll-like receptor ligand in the production of a drug for proliferating animal natural killer cells, wherein the drug for proliferating animal natural killer cells comprises a first agent containing lactoferrin and a second agent containing a Toll-like receptor ligand, and the first agent and the second agent are separately packaged in the drug.

19. The use according to claim 18, wherein the first agent is administered everyday for 5 to 10 days in an amount of 10 to 2000 mg/day/kg body weight in terms of the amount of lactoferrin, and the second agent is administered 5 to 2 days before the completion of administration of the first agent in an amount of 10 to 1000 µg/day/kg body weight in terms of the amount the Toll-like receptor ligand.

20. The use according to claim 18 or 19, wherein the first agent containing lactoferrin is orally administered,

and the second agent containing a Toll-like receptor ligand is intraperitoneally administered.

21. The use according to any one of claims 18 to 20, wherein the Toll-like receptor ligand is polyinosinic-polycytidylic acid.